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Some Clinical Observations.

PROFESSOR MACQUEEN'S ADDRESS TO THE MIDLAND COUNTIES DIVISION, N.V.M.A.

Professor James Macqueen, F.R.C.V.S., gave an address to the members of the Midland Counties Division at Birmingham on 14th November, 1929, his subject being "Some Clinical Observations." Professor Macqueen dealt, in turn, with spinal fracture, shivering and arterial thrombosis.

BROKEN BACK.

The first question to consider about broken back or spinal fracture, said Professor Macqueen, was, How is it caused? In some cases, it was due to jumping and to over-jumping and landing badly. That was, perhaps, the most common cause, but a cause of greater interest to the veterinary surgeon was casting for an operation. Although a horse were cast without any hitch, it sometimes happened that he would not rise after the completion of the operation. Whether the fracture was contracted when the horse went down or after it reached the ground, it was difficult to say. It was possible that the trouble arose whilst struggling after casting, or when hobbled, and other causes were capering in a loose box and falling, collisions in the street, etc. The fracture was usually found in the dorso-lumbar region of the spine. The last two dorsal and the first two lumbar bones appeared to be more often fractured than any other. The fracture, however, might be as far forward as the eleventh segment. Other positions had been reported, and it was possible for more than one bone to be fractured. One case might be represented by crushed fracture of the body of one or two vertebræ, with hæmorrhage in to the canal and outside below the fractured bone. Displacement might not be evident. Another case might show comminuted fracture of the laminæ of one segment, with or without displacement of fragments towards the canal or cord, or causing compression of the spinal nerves. A third case might show multiple fracture of the body and base of a spinous process, with displacement of fragments and extravasation. Occasionally the fracture was one-sided, and restricted to the arch or laminæ, the body being intact. In some cases, anchylosis of the lumbar transverse processes might exist, and this alteration might pre-dispose to fracture by diminishing the resiliency of the spine. In most cases there was hæmorrhage within the canal or just below the fractured bone. Hæmorrhage within the dura mater might be expected in fracture of the arch, but in crushed fracture of the body there might be no evidence of extravasation within the coverings of the cord. In one-sided fracture of the arch, the spinal nerve might be found lacerated. In some cases, the common ligaments might be torn, but in cases contracted in casting the injury might be confined to the body, with more or less hæmorrhage.

As to diagnostic symptoms, a horse with spinal fracture contracted in jumping a fence might gallop on for 100 yards or more, before going down quietly. Another might rise with assistance, walk to a near-by stable, and stand fairly well for an hour or so before showing complete loss of power in his hind legs. A similar case immediately placed in slings might not collapse for twelve or twenty-four hours, or even longer. Usually, the horse was found down and unable to rise. He might voluntarily assume the dog-sitting posture at intervals and he might even raise his hind-quarters from the floor, turning and dragging his body forwards. If an excitable horse, and encouraged to make an effort, he might rise for a moment, trembling, only to sink again to the ground. Complete loss of power might not take place at once, and cases of that kind were not easily diagnosed. In forming a diagnosis of broken back, one should look for the symptoms which was seldom wholly wanting in spinal fracture, such as—loss of power or reaction in the hind limbs; loss of sensation behind the seat of fracture; sweating in front of the fracture; relaxation of the sphincter ani, with limp tail; deviation of the spinal line; a depression or hiatus at some point on the spine; swelling beneath the fractured bone due to extravasation. In some cases, there might be difficulty in reaching a decision that the cause of the paralysis was spinal fracture. The horse might not have been outside the stable for a week or more, and he might be found down unable to rise, his spine having been fractured through falling whilst capering in the loose-box. Cases arising from casting for operation might offer no difficulty in diagnosis. The horse might have struggled violently whilst undergoing anæsthesia. That was followed by cessation of all external movements and profuse sweating, and when the operation was finished, the horse could not raise his hind-quarters from the ground. Palpation of the spine might discover a depression, and a hand in the rectum might find a compressible swelling on the inferior aspect of the spine—symptoms indicative of fracture.

But there was another sort of case in which the fracture was contracted during the operation or in casting. After the operation, the horse rose spontaneously, and continued fairly well, although somewhat upset by the anæsthetic and casting. He fed well, with no alarming symptoms as regards pulse, temperature or respiration. He did not lie down, but might be found leaning against the manger or the wall of the box. At intervals of several hours he might show uneasiness or restlessness, very like slight colic. This seizure soon passed. At walking exercise, he moved quite well for a few minutes, and then suddenly stopped, refusing to go on, bending the body laterally as if suffering from muscular spasm, twitching the muscles of his back and sweating in patches. These symptoms passed, but they reappeared at intervals inside or outside the box. Meanwhile, the appetite fell off, the respirations increased, and there was a rise of two degrees in temperature. The

horse was dull, stationary, and not inclined to move. Then, slight stiffness of the hind limbs set in, muscular spasms appeared at shorter intervals, the horse showed fatigue and general loss of flesh. Later, he staggered, his limbs were not under proper control, he went down and was not able to rise without assistance. When got up and placed in slings, he did not rest in them. He gradually collapsed in the slings and was destroyed. The duration of this trouble had been twelve to fourteen days, and the *post-mortem* showed partial fracture of one segment.

In another case, the symptoms might point to spinal fracture, and yet on *post-mortem* examination no evidence of fracture might be found. Here it was possible that a spinal joint, or more than one, had been wrenched or momentarily lacerated, causing extravasation with pressure on the cord. A case of that sort, if placed in slings early enough, might show improvement for a time, but soon a stage was reached when no further improvement could be expected. Uncertain in his limbs, the horse could not stand without support, and slaughter became imperative.

Shivering.

Professor Macqueen next dealt with the condition known as shivering. Although, he said, the pathology of the affection remained obscure, it was an interesting subject. As a student, he was told that shivering was " an involuntary contraction of voluntary muscles," and that it was a neurosis peripheral in its effects : though probably spinal in origin. Shivering seemed to affect heavy horses more frequently than those of the lighter breeds, but the symptoms were met with in hackneys, hunters, polo ponies and thoroughbreds. How the affection arose was uncertain. It might be congenital in some cases, for it could be seen in yearlings or two-year-olds. He had never seen it in a foal, though possibly its appearance in the very young animal had been overlooked. Shivering must have a beginning, and at one time it was thought to have its origin in some infective disease like strangles. It had even been suggested that it might have some remote relationship with navel disease, or even abortion. It was recognised as hereditary on the usual considerations of circumstantial evidence that the progeny of a shivering sire or dam might become a shiverer. Idleness and rest from work appeared to moderate the symptoms of confirmed shivering. In some cases, the effect of rest was so marked that the horse might be considered as not affected with shivering for some time after the period of rest, but he did not believe that shivering ever permanently disappeared, or that it was curable. Much depended on the degree of shivering in any case. If the symptoms were slight, intermittent and not easily discovered by appropriate tests, a long rest might so alter the constitution of the horse as to enable it to pass a very careful examination without exciting suspicion of shivering. Cases in which the symptoms might be said to be continuous also improved under rest—that was, the shivering became less noticeable. But shivering of any degree was almost certain to be aggravated by intercurrent disease, or by accident or excitement, as might happen on a railway journey, or by exceptional fatigue. An attack of colic, nasal catarrh, strangles, influenza or a severe bruise, punctured foot or like injury, nearly always made the symptoms of shivering more noticeable while the super-added disease or injury was under treatment, but after recovery, the symptoms of shivering subsided or became latent, and were only discoverable by special tests.

The progress of shivering varied very much, depending upon the constitution and general health of the horse and the work required of him. It might be rapid, rendering the horse of little use in a few months, or it might be very slow, the horse continuing quite serviceable for many years. Confirmed shivering was very noticeable ; slight shivering might and frequently did, escape detection. Posterior shivering—the hind-quarters and tail—was much more common than anterior shivering, which affected the fore limbs, and sometimes the lips, cheeks, ears and eye-lids. Posterior shivering might exist alone, but anterior shivering unaccompanied by some evidence of posterior shivering was very seldom seen. Facial and labial shivering might only be noticeable during an attack of intercurrent disease in a horse affected with posterior shivering. The symptoms of posterior shivering were well known and called for no description, but those of anterior shivering were not so well understood. In anterior shivering, the extensor muscles were affected and when contraction took place the limb was forcibly extended and held forwards, the foot raised from the ground. The limb was tremulous while extension continued. In shoeing the limb, when seized with shivering, was suddenly carried forward, the farrier being unable to control it while the spasm lasted.

As to diagnosis, the confirmed shiverer was easily recognised. Various methods might be employed for the detection of symptoms in the mild case—backing,preferably on rising ground ; turning the horse in its own length ; moving the horse from side to side; raising a hind foot and abducting the leg ; striking the hind shank to induce the horse to raise a limb ; hammering the shoe and the hoof ; pricking the hind shank or fetlock; offering water from a bucket on the ground ; blind-folding the horse and then setting it back ; prolonged exercise at a fast pace, followed by rest in a stall, and then testing by backing, turning and lifting a hind foot. If exercise was tried, the horse should be warmed up and then allowed to rest for half an hour.

Arterial Thrombosis.

Professor Macqueen's third and last topic was arterial thrombosis. The affection, he said, was not common, but when met with it might cause considerable difficulty in the diagnosis of lameness that was only shown at work. Cases of obstruction of the posterior aorta, external and internal iliac branches, and of the axillary artery had been seen. Obstruction of the anterior mesenteric artery by parasitic aneurism was not uncommon in young horses, and partial paralysis was sometimes a late symptom of that trouble. It had been supposed that arterial obstruction might be responsible for some cases of paralysis of the penis, partial paralysis of the hind extremities, and so-called " jinked back," or " kidney dropping " in horses. Unfortunately, cases affecting the penis had not been proved, as the pendulous organs had been amputated and the subjects had disappeared. Cases of " jinked back" were rare, and in only one instance had opportunity been given to investigate the cause, which proved to be partial obstruction of the middle spinal artery in the region of the loins. In " jinked back," the horse trotted free of lameness, and might be

exercised—trotting and cantering—for some time before showing any sign of loss of power. Eventually, he showed some shortening of stride, dragging the hind limbs and drooping the hind quarters. Then he slowed up and went down, resting on his haunches, sitting like a dog, but otherwise quite normal. After a few minutes' rest in this position, he rose and continued to go on until the loss of power again set in. In some cases of "jinked back," the horse, in trotting, might show inco-ordination or irregular carriage of the limbs, but generally the action was sound until the horse had been exercised for some time. This form of partial paralysis was sometimes discovered during the test for wind by lunging or in riding the horse.

The immediate cause of post-aortic thrombosis was some change in the internal coat of the vessel, which might be parasitic or the result of an accident. Spinal fracture or wrenching of the spine might damage the artery and induce thrombus formation. In old stallions, the pulse might be very slow, 22—28, and this was said to predispose to thrombosis and paralysis, but it must be said that, generally, there was no knowledge or sign of injury, and, to look at, the horse was in good health. Obstruction might be partial or nearly complete, and it might be parietal—the thrombus forming an encrustation on the arterial wall. Probably all cases began with the formation of a parietal coagulum, which gradually increased in length and thickness. The point of origin of the thrombus might not be discoverable, though probably its extension was against the flow of the blood. In cases which might be regarded as examples of complete obstruction, there was usually a narrow central channel in the thrombus through which a small stream of blood might pass. Effects would depend on the vessel involved and on the degree of obstruction. Aortic obstruction, when not complete, might allow the passage of sufficient blood for muscles at rest, but not enough to maintain their function when the horse was at work. In complete aortic obstruction symptoms of loss of power set in very soon on both hind limbs under exercise. When obstruction was restricted to the external iliac artery, lameness did not appear so soon, or might be one-sided. In that case, the abdominal and thigh muscles were affected. Obstruction of the internal iliac artery of one or both sides affected the tail and the posterior muscles of the thigh. In consequence of injury—wounding or bruising —the arteries of the limb below the stifle or hock might be thrombosed, swelling necrosis and gangrene being the complications.

As to diagnosis, there were no symptoms of lameness while the horse was in the stable, and it might not show lameness when trotted in hand. The owner complained that the horse fell lame whilst at work, the lameness increasing so much that the horse could not go on. Suspecting aortic obstruction, one noted the superficial veins of the hind limbs before the horse was exercised. Usually, they were full and distended. Palpation of quarters, thighs and hocks might discover nothing remarkable. At exercise, trotting and cantering, the horse for a time moved quite well. Then one hind limb, or both, was dragged or trailed, with knuckling of the fetlock, tripping of the foot and drooping of the hind-quarters. The horse slowed up, stopped, trembled, sweated freely, went down and struggled as in colic. In a few minutes he became quiet, though blowing and sweating, rose of his own accord, shook himself, and trotted on, showing no lameness, unless the exercise was repeated. On pulling up, or after the horse went down, attention was directed to the limb veins, which would appear empty, and a hand applied to the skin would find it cold and dry behind and below the obstruction. Diagnosis was made by rectal exploration. Axillary obstruction was less severe in its effects and was usually one-sided. The radial pulse might be small or weak whilst the horse was at rest. In starting exercise, the horse was quite sound in action and for some time continued to step out. Then the step was shortened, the foot tripped, the limb was not fully extended, and very shortly it miscarried or trailed. Here again, the limb below the obstruction was cold and dry, though elsewhere the skin might be covered with sweat. The horse appeared agitated, carrying the affected limb, but he did not go down.

Discussion.

Mr. R. Hughes opened the brief discussion that followed, and mentioned that he and Professor Macqueen were fellow students. He said he had not come across broken back many times, and the best way to avoid accidents arising from casting was to have your apparatus in good condition, and especially to have suitable hobbles, one should be careful, too, not to let the horse fall awkwardly, and to obviate that the best safeguard was to have a good length of casting chain that was kept clean and bright, and that would work freely. As to shivering, he believed it was hereditary, both on the side of the dam and its sire. He thought it was often first discovered in the forge.

Mr. R. Over said it was 35 years since he was under Professor Macqueen's tuition, and it was a pleasure to hear him again, so clearly explaining a subject of which he was master. Quite recently, he had a case of broken back at a steeplechase meeting, and the horse ran on to the next fence, when it collapsed and fell into the ditch. An unusual feature of the case was that, at *post-mortem*, the fracture was found to involve the dorsal vertebræ just in front of the saddle—an unusual position for such an injury.

In the district where he lived, shivering was very common thirty years ago, but he saw very little of it to-day. He would also like to stress the appearance of latent shivering following upon a railway journey.

Mr. C. F. Parsons, another old pupil of Prof. Macqueen's, said he was delighted to have once more the opportunity of acknowledging his indebtedness to an old teacher, whose interest did not cease at qualification, and who at all times was only too glad to render assistance and give help when required. The unique position occupied by Prof. Macqueen as a consultant was due to his extraordinary skill in diagnosis coupled with a very deep knowledge of surgical conditions and their pathology. He would like to express to Professor Macqueen what many of those present in the room felt, namely, that a greater part of what success they had achieved in practice was due in no small measure to the training received at his hands in their youth.

With regard to the question of broken back, the difficulty in forming a rapid diagnosis was most experienced when called upon to do so in the case of a horse falling in a steeplechase and being unable to rise. Mr. Parsons also referred to a condition met with in hunters, in which the predominant symptom was that of inco-ordination of the hind limbs, evinced perhaps only for a short period. This condition appeared to be of the nature of a partial paralysis of certain groups of muscles in the hind limbs.

Mr. J. Martin, Sen., stated that he had encountered a similar condition and had referred to it as neuro-muscular paralysis. The relationship of the condition to that of shivering was probably very close indeed. That heredity

played an important part in shivering was an acknowledged fact. In his particular district, some years ago, a stallion left a large number of foals that at an early age developed symptoms of shivering. The effect of a prolonged rest upon a shiverer was that the disease appeared to become dormant for a time. He had had experience of such a period of rest rendering the symptoms of shivering not apparent for a long period.

Mr. H. W. DAWES remarked that it was a valuable post-graduate lecture to receive an address by Prof. Macqueen, who, beneath a caustic wit, hid a kindly heart, and who was always prepared to asist any one of them with valuable advice and knowledge. Prof. Macqueen was something more than a great teacher—he was a great clinician, and the combination of these two was not often met with. Veterinary education owed a great deal to him as a teacher who could draw upon a vast knowledge of the clinician side of his profession.

With regard to the question of broken back, or spinal paralysis following upon casting, he would like to emphasise the point that, sooner or later, everyone who had to cast horses met with the condition—the man who stated he had never had such an accident had only to cast a sufficient number of horses for it to occur. The most important feature was never to cast an animal without warning the owner of the existence of a certain amount of risk. Particular care should be taken in the casting of middle-aged horses, many of whom, in town stables, did not lie down regularly.

Dealing further with the cast animal, a source of danger was that of turning the animal over. When this became necessary, the turning should be done quickly and expeditiously. An abortive attempt to turn a cast horse might lead to spinal fracture. Mr. Hughes had stressed the importance of the hobble chain, and the speaker would also point out the value of using a noiseless hobble when dealing with well-bred animals. As regarded the symptoms of spinal paralysis, sweating was of great value, but he did not attach too much importance to the question of limpness of the tail.

Concerning anterior shivering, he had met with such cases and often the condition was first recognised in the forge, the smith being unable to retain the foot between his legs. In such cases, it was possible that the shivering might be limited to the foreleg and no sign of it elicited when the hind limbs were handled. The taking of a load over a weighbridge by a horse had sometimes been the means of detecting a shiverer. There was little doubt that a railway journey might provoke the symptoms of latent shivering.

Aortic thrombosis was not a common condition. An animal affected with it continually changed hands owing to the nature of its complaint.

Mr. H. TUDOR HUGHES endorsed what Mr. Hughes, Sen., had said about the importance of having the casting apparatus in perfect order. He also had plenty of assistance in the act of casting, and then he took care that the animal's head was extended as far as possible. He was hoping to see a little light thrown on the etiology of shivering. Mr. Tudor Hughes concluded by describing a *post-mortem* in which the spleen was found to weigh 30 lbs., and it was almost wholly diseased, having all the appearance of being tuberculous.

Professor MACQUEEN briefly replied, saying that, with regard to the effect of a railway journey on a shiverer, he had had many such cases, and the plea had been that the animal must have contracted the ailment in the horse-box on the train, but when the circumstances were investigated it invariably turned out that the horse was a shiverer in the first instance, although the journey might have aggravated symptoms.

He agreed with Mr. Martin's description of partial paralysis as neuro-muscular paralysis. He had never known that turn into shivering, but he had known a shivering horse become partially paralysed. Mr. Howard Dawes was quite right in advising them to warn the owners of the risk that attended casting, and he himself never cast a horse without first doing so.

Traumatic Pericarditis.*

By WALTER FYRTH, M.R.C.V.S., Bridport.

This is a disease or condition caused by some foreign body being introduced into the pericardial cavity from the gastric apparatus or stomachs. The disease is well characterised and diagnosis is not difficult after the first or digestive stage.

First considering the anatomy of the parts, we know that the diaphragm of the ox shows marked concavity on the abdominal side and the pericardium lies exactly in the median line on the thoracic side of the diaphragm and is connected to the anterior surface of the diaphragm by a fold of tissue. On the posterior side of the diaphragm lies the reticulum in the median line and closely applied to the diaphragm. Here therefore it is evident that any foreign body passing forward from the reticulum through the diaphragm must penetrate the pericardial sac.

CAUSE. As we know, cattle swallow their food rapidly and at the same time any foreign body or bodies in the food almost without masticating, and prior to rumination, as the food swallowed disintegrates in the rumen, any foreign substance falls into the reticulum as well as during the movements of the rumen during rumination. The commonest objects which cause this condition are nails, needles, pieces of wire and hair pins which are picked up with the food. Impelled by the movement of the reticulum, the foreign body is forced against and gradually through the anterior wall of the reticulum and so gradually through the diaphragm into the pericardium or the pleural sacs and progression depends largely on the size and sharpness of the object. Occasionally the foreign body takes a downward course and works out through the tissues by an abscess formation immediately behind the xiphoid cartilage. In one case, I found, on making a *post-mortem*, a piece of wire two inches long in the liver, with one primary abscess and several secondary abscesses in that organ. The animal had been wasting and showing symptoms of digestive trouble. The foreign body produced marked irritation and according to its infectivity, gathered in the digestive apparatus, the degree of inflammation varies.

SYMPTOMS. The earliest symptoms are those of indigestion, because at first the trouble is in the digestive organs. The patients are dull, lose their appetite, ruminate less regularly or not at all and show tympanites (intermittent). This is due to the inflammation of the reticulum and checking of diaphragmatic movements when the body reaches that organ and so rumination is disturbed, with consequent tympany. The grunt of indigestion is noticeable also. This primary phase may disappear in a few days or may persist for some time.

The moment the foreign body enters the thoracic cavity we enter into the second phase of the disease, the passage through the diaphragm varying in time according to length and thickness of the object and this is characterised by alterations in the respirations caused by immobility of the hypochondraic region. On palpation of the region acute pain is often evinced and the symptoms now show that the body is in contact with the pericardium. These symptoms

* Paper presented to the Western Counties Division, N.V.M.A. at Taunton, on 20th November, 1929.

are well defined. There is a noticeable change in the heart beats, these rising to over 100 per minute at times and the sounds are tumultuous, whilst the pulse is full and bounding. As the body penetrates the sac the infection produces acute inflammation and exudation into the sac, and the pulse becomes weaker and weaker owing to pressure of the exudate on the heart. The temperature does not rise very high. On palpation the beat of the heart cannot be felt on the left side over the cardiac area and, the lungs being thrust upwards by the distended sac, adhesion of the sac to the parietal pleura gives us a dulness on percussion. Simple or double pleurisy and even pneumonia from infection may occur from contact. Before exudation occurs one may hear rubbing sounds of the pericardium and when exudation (serous) occurs one may hear a liquid sound with each heart beat. From the first the heart beats are accelerated. We next get jugular symptoms, due to the dilation of the sac causing pressure on the auricles and this pressure, preventing return circulation, causes venous stasis, which is clearly visible owing to distension of the jugulars, together with a jugular pulse.

The œdema of the submaxillary space is the first and characteristic symptom, followed by neck and dewlap; and it may extend as far back as the umbilicus, besides being present internally. Percussion shows also congestion and œdema of the lungs. The respiration is fairly regular, but movement causes great acceleration—up to 40 or more. In most cases there is also present a frequent cough, which comes in paroxysms, especially on the animal being moved.

As the disease progresses certain well-marked symptoms are shown. The animal remains standing in one position for a long time, with head extended, front legs forward and wide apart and the body rigid (somewhat like a horse with tetanus), and movement causes great distress. Affected animals seldom lie down and if they do it is only for a short time. The appetite disappears and they lose condition quickly. The course of the disease varies from a few days to a few weeks according to the degree of infection, and death may occur quite suddenly if the foreign body penetrates the myocardium.

DIAGNOSIS. This cannot be assured until the third stage as a rule, but the cardiac symptoms following digestive disturbance and venous stasis furnish pretty good evidence. Pericarditis may be caused by cold or rheumatism, but does not produce the abdominal symptoms and is amenable to treatment. It also may be caused by peri-pneumonia, in which case the temperature curve would assist diagnosis, as fever is well marked, whereas in traumatic pericarditis it is very slight.

POST-MORTEM. Usually the reticulum, diaphragm and pericardium are united by a fibrous mass varying in size according to the time of passage of the foreign body. Through this may be traced a sinuous tract from the reticulum to the pericardium. The opening from the reticulum may be closed by granulations or a cicatrix but open at the sac end. The nature of the walls of fistula varies according to age.

Fluid in the sac varies in quantity and character from sero-sanguinolent to pustular (even inspissated). The heart is covered with a greyish, granular tissue and may be atrophied by long pressure. At times abscesses are present. Dropsy of the serous membranes and œdema are often present and in cases that have extended over some weeks we find hypertrophy of the liver, showing a condition known as nutmeg liver.

Treatment is of no avail in this condition.

REFERENCE.

MOUSSU and DOLLAR—Diseases of Cattle, etc.

DISCUSSION.

In reply to Mr. E. B. D. Hall, the PRESIDENT said that, as a rule, he had had no difficulty in finding the foreign body at a *post-mortem* examination. He had found that traumatic pericarditis was more common near towns where refuse from the destructors and ashpits was used as manure on the land. Oil cake, cotton cake, etc., very often had nails among it and it was possible for a cow to get a nail in that way.

Major E. J. THORBURN remarked that Major Fyrth was very fortunate in being always able to find the foreign body. He had had several cases in which he could not find it.

Major FYRTH: My last cases have had as the foreign body wire (three cases), a 1¾ inch nail, a darning needle and a hairpin. If I get a recurrence of an ordinary case of indigestion, I am always suspicious of a foreign body working forward. In most cases of a quick recurrence, you will find that is what it is.

Mr. C. MASSON said he also had found the black hole, but had not been able to find the foreign body. He always considered that a case of indigestion with a slight temperature was very suspicious. Another symptom was persistent constipation. A leading symptom was the tinkling. If a bullock showed "colicky" symptoms, which probably passed off, it was ten chances to one that in a month or six weeks it would develop traumatic pericarditis.

Major FYRTH remarked that in every case of traumatic pericarditis he had found the "crocodile heart."

The HON. SECRETARY (Mr. R. B. Nelder) proposed a hearty vote of thanks to Major Fyrth for his very interesting paper. He observed that cases of traumatic pericarditis seemed to occur in cycles, which could not be explained.

Mr. E. C. BOVETT seconded the vote of thanks, which was heartily endorsed.

Major FYRTH, replying, mentioned that he recently discovered a case of tuberculous pericarditis in a cow, which, however, was not in a poor condition. The animal had been condemned under the Tuberculosis Order. It was one of the most remarkable cases he had ever seen.

PARLIAMENTARY NOTES.

Protection from Tuberculous Milk. Dr. Somerville Hastings was told by Mr. Greenwood that the steps taken to protect the public from tuberculous milk included the promotion of legislation and the issue of orders and circulars. While the actual responsibility for the protection of the public health rested with local authorities, his department assisted by inspection and advice both to local authorities and to milk producers.

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Inspection of Dairy Farms. Mr. Greenwood told Dr. Fremantle, that two inspectors were employed by the Ministry of Health in the inspection of dairy farms, but neither of them was a qualified veterinary surgeon. The only farms inspected by officers of the Ministry were those producing certified and Grade A (tuberculin-tested) milk. Examination and testing of cattle on these farms was, however, carried out by qualified veterinary surgeons approved by the department. Dr. Fremantle contended that, as the object of the inspection was to help farmers to eliminate tuberculosis, it would be a greater help to them if the inspectors from the Ministry were qualified veterinary inspectors. Mr. Greenwood said he would be glad to discuss the question with Dr. Fremantle.

The Veterinary Record.

28th December, 1929.

A Merry Christmas to all our Readers.

N.V.M.A. PRESIDENT'S NEW YEAR MESSAGE.

It has become a tradition that the President shall address the members of the "National" at this season of the year and it is a privilege which cannot be lightly esteemed.

When the old year is departing and the new year is being so joyfully rung in, we are supposed to review the past and make good resolutions for the future. However admirable this retrospection and introspection may be for individuals, it must be even more necessary for a profession.

The life of a Veterinary Surgeon leaves little time for reflection; the telephone with its incessant call and the speeding up of life in general is not conducive to that clear thinking which is so necessary if a broad vision is to be taken. After a rushing day and the prospects of a disturbed night, the average Veterinary Surgeon is only too anxious to take his rest, which is not likely to be broken by an uneasy conscience. There is hardly a calling which is more exacting than that of the country practitioner and very few which demand such skill, resource and tact to make it successful. I might say also, none where the monetary rewards are comparatively so small, but in spite of all this, the vocation will always appeal to some of us. It is a man's life: full of adventure and thrills, never dull or monotonous, always fresh faces, new cases, difficulties to be overcome, problems to solve, advice to be given, and, if this can be combined with a soupçon of sport, it will make the work go easier.

Whatever the drawbacks, it must be acknowledged that our work brings us very close to Nature, the countryside, the animals and God's good air. Why, then, are we not content? It is in the nature of man to strive and hope: a man without ambition or hope is dead indeed. Many of the problems that faced our forbears one hundred years ago so acutely are still for solution, but there is no reason for despondency; great strides have been made and I see signs of more rapid advancement in the future. We may sometimes think progress is slow, but we are a small profession and have had little help from Governments or those in authority. Any advance that has been made is the result of our own efforts and there is cause for satisfaction in this. "Heaven helps those who help themselves" is a true saying which applies with equal force to us as a profession as it does to individuals. During the last year the Lovat Commission has held an enquiry into the condition of Veterinary Science in this country, especially with a view to the needs of our Colonies and Dependencies. A Committee was also set up to advise on the future of the Royal Veterinary College in London. The form of training of the next generation of Veterinary Surgeons will depend a great deal on the result. One thing has been fully demonstrated: that more financial support and encouragement must be given in the future than in the past, so that proper facilities for teaching can be provided.

The Schools must no longer be asked to depend chiefly on students' fees. That the public is beginning to realise this was well brought out in the remarks of Lord d'Abernon at the Thoroughbred Breeders' Association meeting, when he made the suggestion that some of the funds available from the profits of the totalisator should be used for the advancement of Veterinary Science. A Chair of Canine Medicine is also being endowed at the London College. More money is needed for research, *e.g.*, an investigation into canine hysteria is being delayed through want of funds. Efforts are now being made by the "National" to put the standard of emoluments for public appointments on a more equitable basis and one more commensurate with that of other professions. The medical profession was faced with the same difficulty, but by persistent efforts and by placing a ban on those appointments below a certain standard they have now come to an agreement with the Ministry of Health and local authorities throughout the Kingdom, that on April 1st, 1930, all those below a certain level shall be raised and future appointments shall be paid at a fixed rate, depending on the particular grade and the responsibility involved. The success of these measures depended on the loyalty and *esprit de corps* of its members.

Some self denial may have to be practised, or even some hardship may result for some, but they must realise it is for their own good as well as that of the profession. Is to too much to ask for this loyalty?

It has now struck twelve, so I hasten to wish you in all sincerity Health, Happiness and Prosperity in the New Year.

G. P. MALE.

ROYAL COLLEGE OF VETERINARY SURGEONS.

Membership Examinations, December, 1929.

LIST OF SUCCESSFUL CANDIDATES.

DUBLIN.

Class A.
*Crean, B. F.
Keatinge, G. A.
Pilkington, C. J.
Harkin, D.

Class B.
Healy, M. M.
*Lambert, N. H.

Class C.
Griffin, R. P. C.
Spears, Miss K. M.
Thompson, A.

Class D.
Fitzgerald, J.
Flynn, P. T.
Harris, A. P.
O'Brien, H. V.
O'Connell, J. L.

GLASGOW.

Class A.
Singh, Pritam
*Stewart, John

Class B.
Chesters, R. W.
McKinnon, John
Paterson, E. S.

Class C.
Baird, M.
Catchpole, Miss A. M.
Mossinson, D.
Ross, R. F.
Walsh, A.

LIVERPOOL.

Class B.
*Amos, Miss V. J. E.
*Burnett, Miss E. A. R.
*Edwards, A. E.

Class C.
Cautley, P. J.
*Chalmers, G. S. R.
Dudlyke, Richard
Edwards, G. V. J.
Isherwood, R. V.
White, R. S.

LONDON.

Class A.
Captain, S. R.
*Fundaminsky, I.
*Gachet, A.
Head, C. S.
Heap, Miss G.W.
*Hernaman-Johnson, Miss K. M.
Kapur, J. C.
Lewis-Bowen, E. H.
Malik, M. S.
Richardson, D.
*Sherbrooke, D.
*Smith, H. L.
*West, G. P.

Class B.
Graves, H. S.
Gray, E. A.
Hudson, G. A.

Class B—continued.
Kinnear, Miss J. M. F.
McCarthy, M. O. J.
Masson, D. R.
Pande, P. G.
Runciman, J. P. G.
Tennant, D. I. C.
Torres, M. J.

Class D.
Balfour-Jones, S. E. B.
Davies, Thomas
Evans, T. M.
Garside, J. S.
Herratt, John
James, A. J.
Kidd, A. A.
Shingler, H. C.
Thomas, D. H.

* Denotes 2nd Class Honours.

(To be continued).

CLINICAL AND CASE REPORTS.

Hæmorrhagic Enteritis in Greyhounds.

By FRANK CHAMBERS, F.R.C.V.S., Wolverhampton.

The above condition, which appears at irregular intervals in greyhound kennels, causes a great deal of loss where a large number of hounds are kennelled together. The condition is not altogether peculiar to this type of dog, but the larger percentage of cases is seen in greyhound kennels. It is so extremely rapid in its onset and course, that the majority of cases only last about twelve hours. Since Professor McCunn's article dealing with the treatment of this disease appeared in the *Veterinary Record* of October 12th, and that of Mr. Barrett, on November 2nd, I have had seven cases, five of which proved fatal twelve hours from being noticed to be passing blood. The last two cases recovered.

I am of the opinion that this condition is a per-acute form of distemper. I may be wrong, but I intend to send the cadaver of the next fatal case to Mill Hill (if they will have it) for inoculation experiments. The injection of spleen pulp from one of these cases should produce an attack of distemper in a susceptible animal if the disease is distemper.

CASE 1. October 11th, "Stoneware," three-year-old bitch. Had been in possession of owners two years. Never been known to have had distemper. Was "off colour" for two days before passing blood. She died in a few hours before anything could be done for her. *Post-mortem.*—Teeth covered with dark brown slime. Lungs showed patches of broncho-pneumonia. Intestines inflamed and contained blood only.

CASE 2. "Gallant Comrade," October 22nd. Fed up the night before and, according to the trainer, was perfectly fit. Was noticed in the morning to be very ill; passing pure blood, temperature 105°, teeth coated. Gave an intravenous injection of formalin in water; also administered pituitrin subcutaneously. At 4 p.m. the temperature was 100° F. and he died at 7-30 p.m. This dog would be about four years old and was a wonderful performer. He had not run for several days before being taken ill.

CASE 3. "Come it Over," two years old. Had been off colour for two days, but had eaten his food. As he was a fresh dog the trainer thought he was "moping." His temperature at 10 a.m. was 105° F. I gave an intravenous injection of formalin in water and later in the day an intramuscular injection of S.U.P. 36. Brandy and milk was administered every hour. The temperature at 7 p.m. was 99·6°. He died at 9 p.m.

CASE 4. "Boolaroo." Noticed ill early on November 9th. I saw him at 11 a.m. Injected formalin and later camphor-in-oil *subcutis*. He died at 6 p.m. There was a large and persistent hæmorrhagic enteritis from this dog.

CASE 5. Similar to above.

CASE 6. "Pantlett," eighteen months old bitch. November 23rd. Temperature 104°. Voiding blood every half hour. Great depression. Injected 10 c.c. Cutter's homologous distemper serum and gave hydrated bismuth and chlorodyne *per os*. Not much improvement at night. Temperature 104·6°. On November 23rd gave another

injection of serum. She drank a little milk during the day. Brand's essence of beef was also fed. The hæmorrhage was much better. On the 25th the temperature was 102·4° and she showed an inclination to eat a little raw beef. This bitch eventually made a good recovery.

CASE 7. November 28th, "One Job," eighteen months old. Usual symptoms. Temperature 105·5° in the morning. Gave serum. At night temperature 100.° Injected camphor-in-oil subcutaneously and gave a bad prognosis. On 29th dog still alive, but very weak; not so much blood. I gave more serum and camphor. Temperature still 100.° Fed on brandy and milk. This dog is now well on the way to recovery.

I had had no cases of this complaint in the kennels for the past six months before the first case recorded. Five cases of distemper were being treated in the early part of October. There being no isolation boxes, the affected dogs were treated where they usually lived. The dog next to Case 2 developed typical distemper four days after No. 2 died. He had occupied the adjoining kennel.

Another dog, "Park Drive," also developed distemper, of a mild type. He occupied the kennel on the other side of case 2. Cases 3, 4 and 5 were in one lot of kennels and before they were taken ill three cases of distemper were being treated there. All the distemper cases recovered. Two of them were together in kennel 16, which was next to that of Case 7. The advent of hæmorrhagic enteritis usually follows the outbreak of several typical cases of distemper. When the distemper ceases to crop up, then we have absolute freedom from this enteritis.

I realise that the number of cases treated by canine homologous serum is too small to allow me to make any definite deduction, but I am putting my experience on record in the hope that it may be given a trial by those who have greyhounds to deal with; trusting, moreover, that they will also report their results, whether good or bad.

Food Poisoning in a Collie.

By FRANK CHAMBERS, F.R.C.V.S., Wolverhampton.

One often sees cases in dogs in which, after the ingestion of decomposing food, very acute sickness and diarrhœa follow, but authentic cases of food poisoning in the animal world are rare. The case described below is doubly vouched for, in as much as both the owner and his wife were also poisoned by the same food.

In July, 1929, some "Scotch eggs" were purchased from a reliable firm in the Midlands. "Scotch eggs" are, apparently, hard-boiled eggs rolled in sausage meat. The dog, a collie, only received a few crumbs, but they were sufficient to produce a very alarming train of symptoms. Twelve hours after partaking of this dish the owner of the dog was taken violently ill with acute pains in the abdomen, accompanied by sickness and diarrhœa. The wife was not affected until 22 hours after with the same symptoms. They were confined to their beds for five days and the after-effects lasted for over three weeks. The bitch was taken ill exactly 17 hours after eating the "few crumbs." In the words of the owner "the eyes became filmed over, followed by violent sickness and diarrhœa. Forty-eight hours later the lower jaw was noticed to be paralysed."

She was then sent in to me for treatment. The bitch appeared quite lively. Pulse and temperature were normal. The lower jaw hung down and was totally paralysed, but the tongue did not appear to be affected. When pieces of meat were put into her mouth she could swallow quite well; she was able to lap fluids with some difficulty. Treatment consisted of the administration of pot. iod. and several very small doses of strychnine subcutaneously. In five days after admission the use of the jaw was beginning to return and in ten days' time she was apparently normal.

From The Veterinarian, November, 1829.

Soundness in Horses.

By Mr. W. PERCIVALL.
(Read at the Veterinary Medical Society, October 21, 1829.)

(*Continued from page* 1121.)

Before I attempt to surmount this difficulty (for surmounted it must be before the question of returnability can be decided), I would fain glance at another side of the subject and see how the affair stands in the petty or ordinary transaction of life. A man, *e.g.*, takes a bad shilling unconsciously, and afterwards discovers it, and can swear of whom he took it: the shilling is returnable, notwithstanding it was passed without any warrantry; and justly so, because by the contract it was implied that coin was that of the "standard of the realm."

But, suppose a person buys a decanter which at the time of the purchase he knows to be (what is phrased) "starred"; and that this star (which is but a blemish—not a defect, inasmuch as the vessel continues perfectly wine-worthy) by use or accident becomes converted into, or gives rise to, a crack, letting out the contents: is the decanter in this state returnable? I conceive, not. Had the vessel been carried back to the vendor with the star only, even though that had been overlooked on purchase, it certainly would have been returnable; but, since a crack has supervened upon the star, and thereby the vessel rendered useless and valueless, the buyer, I should say, ought to be made the sufferer.

Let us apply these remarks to soundness in horses. Suppose a gentleman makes a purchase of a horse of a dealer; that the animal has a catarrh or cold at the time of purchase; and that this catarrh proves to be the forerunner of a violent inflammation in the lungs: is the horse in such a state returnable? I know I may be told that the answer must be framed according to the circumstances of the individual case;—that it must depend upon the length of the interval of the transfer, or of the accession of the pulmonary disease; upon the usage the animal experienced in the interval; or upon some other contingency: but I must contend that it ought not to be made to hinge upon any circumstantial contingency whatever; but ought to be brought to bear upon plain matters of fact and presence, and by that, and that alone, to be determined. The plain straightforward question to be put first, in this case, is: Was it a simple catarrh that the animal had at the time of purchase: or had the disease in the lungs shown itself, by any undeniable symptom, already to have commenced? If it can be proved to have been catarrh, and nothing but catarrh, why, I should say, the animal is not more returnable with an inflammation in his lungs than the cracked decanter is which was sold with merely a star: on the other hand, if any unequivocal symptom of the pulmonary inflammation can be shown to have existed at the time of the transfer, why then, I should pronounce the animal to be returnable, even though he were dying or dead from the disease.

But, let us view this question in another light. Suppose it should be argued that the horse certainly is returnable under such circumstances, because the catarrh was the forerunner of the pneumonia, and because it is common and natural for one of these disorders to run into the other. Grant this, what does it lead to? Why, it leads to the deduction that a star (in glass) may become a crack; and that from a crack the piece may fall out; and that the decanter, which was simply starred when bought, is ever afterwards returnable for anything connected with that star, even though there should be actually a hole through it: or, to apply this to the case before us, that a horse that had only a simple cold when he was bought, is ever afterwards returnable for anything that can be traced to have any connexion with that cold, whether it be pneumonia, or roaring, or broken-wind, or a state between life and death, or even death itself. In making the comparison between the cases of the horse and the decanter, I feel fully conscious of the broad line to be drawn between animate and inanimate matter—between organic and inorganic life: I know it may be argued that the defect in the decanter can be aggravated only by use or accident—that, so long as the glass vessel remains laid up, so long will it remain in *statu quo*; and that, so far from this being the case with a living body, even though it be kept in a perfectly quiescent state, disease in it will either increase or diminish—the animal will either grow worse or grow better; for which reasons, it may be said, my comparison is not justifiable. The only reply I can make, is, that I am desirous to come to some decision, in regard to these embarrassing cases, than which, as you are all well aware, gentlemen, nothing is more "devoutly to be wished"; and, for my own part, I see no way of arriving at this desideratum, so equitable, and likely to prove satisfactory, as to say—

That a horse purchased with one disease upon him, ought not to be held returnable for or with any other, contracted afterwards.

(*To be continued.*)

ABSTRACTS.

[**The Importance of Copulation-infection in the spread of Contagious Abortion.** THOMSEN, A. (1928). *Dtsch. Tierärztl. Wschr.*, 36, 28, 477-81.]

The author shows that the infection of a male goat's prepuce with *B. abortus* (suspension of an after-birth of an aborted cow) followed by immediate service of female goats (18 used in experiment) did not lead to abortions. When copulation was allowed to occur and then, at varying times during pregnancy, *B. abortus* administered *per os*, the following result was obtained. Those goats fed at the beginning and end of pregnancy "kidded" normally; in those receiving infected feeds between the 28th and 108th days of pregnancy, abortions were frequent.

[**Genital Tuberculosis in the Cow.** GURINI, A. (1927). *La Clinica Vet.*, 50, 604-611.]

Of 500 slaughtered cows, 52 were affected with generalised tuberculosis. Of these, 11 had tuberculosis of the genital organs; in 6, the lesions were in the ovaries, Fallopian tubes and uterine horns and body; in another in the ovaries, Fallopian tubes and uterine horns; in another in the left Fallopian tube and uterine horn, and in 3 in the ovaries, tubes, uterine horns and body and in the vagina. The author is of the opinion that genital tuberculosis in the cow is nearly always of a secondary nature. Usually it commences through the extension of the process from the peritoneum to the Fallopian tube An ascending infection, commencing as a tuberculous colpitis, was not observed; such an occurrence did not appear possible.

[**Treatment of Tuberculosis by Sanocrysin.** SECHER, KNUD (1928). *Klin. Woch.*, 7, 35, 1640-44.]

There is for each case of tuberculosis a particular dose of Sanocrysin. Too large an amount may cause a prolonged febrile attack and secondary effects. On the other hand, the relatively highest dose is more effective than the relatively lowest.

Of patients treated by the author, 167 were discharged as cured, 61 as improved, and 62 as unchanged. These last comprised individuals affected with the most severe form of tuberculosis. Thirty-four severe cases were dismissed as cured and 48 as improved. Of 95 patients discharged as cured, 10 had relapses within one and a half years. Although re-examinations of all those treated could not be carried out, it appears that Sanocrysin is able to bring about cures or improvements in many cases.

[**Anthrax in the Cat.** TECLU, M. V. (1927-8). *Archiva veterinara* 20, 5-6, 129-156.]

A cat, one year old, was found dead in the morning without having shown signs of illness.

Post-mortem.—Œdema of glottis; dark, uncoagulated blood; œdema of lungs; fatty speckled liver; spleen very enlarged, dark, pulp very soft; lymph glands petechial; kidneys very congested; bladder empty. Smears from blood and organs showed bacilli, proved later to be those of anthrax.

A second cat, having died from natural anthrax, showed similar lesions on autopsy.

It was possible to infect cats by many routes, the intracardiac, intravenous, intraperitoneal, intratracheal, subcutaneous, intralaryngeal, intramuscular being possible on all or some occasions; attempts to infect intradermally by instillation, by scarification, intravaginally, and *per os* failed.

The artificially-produced disease differed from the natural in that the throat was only slightly enlarged and œdema was usually absent. The blood was always dark and seldom clotted, a vasodilation was present, and bacilli were always demonstrable and these gave the Ascoli reaction.

PARLIAMENTARY NOTE.

Contagious Abortion in Cattle. Dr. Fremantle addressed a question to Dr. Addison concerning contagious abortion in cattle. Dr. Addison replied that in herds where the percentage of infection was not high the Ministry of Agriculture recommended that the disease should be controlled by hygienic methods and the agglutination test for the detection of infected animals. In herds where infection was heavy the Ministry advised the immunisation of all non-pregnant animals with the live vaccine, which had been issued from the Ministry's laboratory since 1912, and was in demand. The disease did not lend itself to legislative control. Dr. Fremantle asked whether those methods had increased or reduced the incidence of the disease. Dr. Addison asked for further notice of this.

REVIEW.

[**A Laboratory Manual of Milk Inspection,** for milk inspectors, analysts and students in dairying, agriculture and veterinary science. By A. C. AGGARWALA, B.Sc. (Punjab), M.R.C.V.S. First edition, 1929, 179 pages. Gulab Chand Kapur & Sons, Anarkali, Lahore. Price not stated.]

As stated in the preface, this work is the outgrowth of a series of practical lectures given by the author to the final year students of the Punjab Veterinary College, Lahore. It is specially prepared as a guide for students in milk inspection, but it is hoped that it will be of assistance to analysts, health officers, agriculturists, dairy students, etc. As no book of this nature had been published previously in India, much of the teacher's time had been taken up in giving instructions as to how the student should proceed in his practical work. The disadvantage of this has been a tendency for the student to become too dependent upon his teacher for instruction and so to lose self-reliance. The present work is arranged in such a way that the student is afforded an opportunity of thinking independently, while the teacher is given scope for amplifying instruction where he may deem it to be advisable. The book thus serves a two-fold purpose. The reader is informed that this first edition is in the nature of a trial run and something more comprehensive and up-to-date is promised if the demand for this one is encouraging.

The manual is divided into sixteen chapters, which deal with the following subjects, among others: the composition and general properties of milk; the physical, chemical and bacteriological tests which may be applied for ascertaining the fitness of milk for human consumption; the pasteurisation of milk; the making of butter. In each chapter there is a short introduction, followed by practical exercises to be carried out by the student, and in order that methods and results may be recorded a number of blank pages are included. In this way it is within the power of the student himself to enhance the value of the work. Chapter 16 contains such useful information as, notes on the preparation of standard solutions, and length, weight, capacity and temperature equivalents. A list of tables required for the estimation of fat, total solids and lactose is given in an appendix. The accepted doctrine is set forth in simple language and the student is not only instructed what to do, but also what not to do.

The publication of this work should be an incentive towards improving the conditions of milk production and handling of milk in India, and Professor Aggarwala's efforts in this direction are worthy of praise. The student who carries out the practical exercises diligently will undoubtedly equip himself with a sound working knowledge of milk testing. F. C. M.

Dr. Gerald Leighton, of Edinburgh, in a lecture to students attending the technical education classes at Aberdeen, said: The first meat inspectors to be found in Great Britain were appointed in Aberdeen as long ago as 1399 by gentlemen of that day, who represented the Aberdeen Fleshers' Incorporation. They had a Latin title, which translated means "judges of flesh." The first slaughterhouse was established in Aberdeen by the Fleshers' Incorporation in 1631.

MUNICIPAL REPORT.

Sheffield—Report of the Chief Veterinary Inspector for the year 1928.

Mr. J. S. Lloyd's report deals chiefly with contagious disease of animals, dairy inspection, and meat inspection. Under the section on the Diseases of Animals Acts it is pleasing to note that there were no cases of equine parasitic mange or anthrax. There was one outbreak of foot-and-mouth disease, with all its attendant control of movement, etc.

Of 83 cases of illness or death amongst pigs, reported under the Swine Fever Order, only four were confirmed as swine fever. In other words, out of every 21 reports only one case was confirmed. This seems to support the view that there is something wrong with the official policy of control. It has often been claimed that the pig industry is harassed by an excess of "safety first" with regard to reporting. As it appears that there is much swine erysipelas in the city, general practitioners ought to be able to render valuable help in reducing such losses by means of protective inoculation.

Under the Tuberculosis Order, 49 cases were dealt with; 20 cows had tuberculosis of the udder and 29 had other forms of the disease.

Dairy Inspection. There are 156 cowsheds in the city with 2,228 cows; it is estimated that on an average a cow milks for eight months, so that 742 fresh cows must be added to get the annual number, *viz.*, 2,970. These, it is stated, are examined five times a year. The total inspections of cows numbered 6,732, and 22 were found to have tuberculous udders—equal to a percentage of ·74 on a total of 2,970 cows.

Of 1,027 bulk samples of mixed country milk submitted to the biological test, 65 were tuberculous—equal to a percentage of 6·3. In following up these samples the county authorities discovered 44 tuberculous udders and eight animals with other forms of tuberculosis. In three cases tuberculous udders had already been dealt with by the county veterinary officer. Thus, in 47 cases out of 65 the offending cow was discovered. No mention is made of the explanation in the 18 other cases.

The diagnosis of tuberculous disease of the udder was confirmed by microscopical examination in all the town cases, and the value of this rapid method of removing dangerous animals without friction is rightly emphasised. In the table on page 3 it appears that of 49 animals dealt with under the Tuberculosis Order, 20 had the disease in the udder and 29 in other forms, whilst on page 5, 22 are stated to have had tuberculosis of the udder and 27 other forms.

Numerous visits were made to the municipal stud in order to carry out veterinary duties.

Meat Inspection.—The particulars and statistics concerning this important subject call for very few remarks. Apparently the amount of frozen and chilled meat imported into the city is approximately the same as the fresh supply. No fewer than 778 horse carcases were examined and 772 were passed for export. It would seem, therefore

(*Continued at foot of first column next page.*)

DIVISIONAL REPORTS.

Midland Counties Division, N.V.M.A.*

TRIBUTES TO MR. MARK TAILBY.

At the quarterly meeting of the Midland Counties Division, N.V.M.A., held at the Grand Hotel, Birmingham, on Thursday, November 14th, members were entertained to luncheon by Mr. Mark Tailby, doyen of the profession. He desired to show his appreciation of the honour which the Division conferred upon him by electing him an honorary member, but to the disappointment of his guests he was not well enough to be present himself.

The luncheon was presided over by Mr. W. E. Ison, president of the Division, supported on his immediate left and right by Sir John M'Fadyean and Professor Macqueen. The company also included Dr. Bullock, Messrs. J. L. Cormack, W. H. Brooke, L. W. Heelis, S. M. Woodward, Brennan DeVine, R. P. Palmer, F. J. Taylor, R. Hughes, H. T. Hughes, G. Leader, J. W. Conchie, O. V. Gunning, H. Griffiths, L. C. Tipper, R. Mackenzie, T. H. Hobson, T. Robertson, C. F. Parsons, E. O'Neill, W. F Aston, Col. Marriott, Messrs. J. Martin, T. D. M. Martin, H. B. Hiles, T. H. Hughes, T. Whyte, K. A. Miles, G. R. Benbow, R. Over, H. Burrow, A A. Forsyth, H. W. Dawes, John Young, N. T. Gold, A. Renfrew, jun., and H. J. Dawes, Hon. Secretary.

A number of apologies were received.

An excellent repast was followed by only two toasts—the King, and Mr. Mark Tailby.

Mr. W. H. BROOKE proposed the health of Mr. Tailby, the oldest member of the Division, and thanked him very much for inviting the members to lunch. Although kept away that day through the infirmities of age, Mr. Tailby's interest in the Division was as great as it had ever been, and they had had no more loyal or more enthusiastic member than he was. "In my early years," continued Mr. Brooke, "I came into frequent contact with Mr. Tailby, and I always found him to be all that a practitioner should be. When I met him as consultant, he was always charitable in what he said to a client and invariably right in his diagnosis, especially in diseases of the chest. He observed a high code of professional ethics, and did much during his long life to raise the status of the profession.

The HON. SECRETARY, supporting the toast, said he had known Mr. Tailby for 50 years, and a straighter man it would be impossible to meet. Although ninety years of age, he was as spruce as ever, and full of enthusiasm for the profession.

Mr. F. J. TAYLOR said that, as an old Birmingham practitioner who at one time often met Mr. Tailby, he also would like to speak to the toast. Mr. Tailby was an ideal practitioner and a gentleman in the truest sense of the word.

The toast having been very warmly honoured, the PRESIDENT said it would be a kindly act which they would all appreciate, if Sir John M'Fadyean would visit Mr. Tailby on behalf of the company, and express to him their thanks and good wishes.

Sir JOHN M'FADYEAN said it would be a great pleasure to convey such a message to Mr. Tailby personally. He should like to associate himself with all that had been said concerning their host. "It was a great disappointment," added Sir John, "on arriving here to find he was not able to be present. I am happy to count Mr. Tailby as one of my oldest friends. I have always found him a most lovable man, and one who was interesting in conversation."

FUTURE ARRANGEMENTS.

At the business meeting which followed, a report was read from the Council, recommending that the annual meeting at Birmingham, in February, be on the same lines as in recent years, namely, a dinner, followed by a musical programme, to which ladies are to be invited.

This was agreed to, the arrangements being left in the hands of a committee consisting of the President, the Hon. Secretary, the Hon. Treasurer, Mr. DeVine, Mr. Cormack and Mr. Howard Dawes.

The Council further recommended that at the quarterly meeting in May, a visit be paid to the Birmingham Bacteriological Laboratory, the Director of which had promised to demonstrate the work that was being done there.

This proposal was also accepted, and Mr. DeVine was asked to fill up the day's programme by arranging for a visit to be paid to a Grade A milk-producing farm.

SCHEME FOR THE ERADICATION OF BOVINE TUBERCULOSIS.

The HON. SECRETARY read a circular from the West of Scotland Division, N.V.M.A., making recommendations for the clearance of tuberculosis from herds, and the PRESIDENT said he was afraid there would not be time to discuss the subject that day.

Mr. DEVINE said it would be a thousand pities if an important communication of this character was shelved. This question of tuberculosis in cattle called for the serious attention of every veterinarian. He held certain views which were the result of experience and he thought it was of such importance that the Division might do worse than hold a special meeting to consider the matter. He moved that a special meeting be called in four weeks' time for that purpose.

Sir JOHN M'FADYEAN, invited to espress his opinion, said they must all agree that it was a tremendously important question. There might not be any great hurry, because they need not expect legislation in the next five minutes, but that was no reason why they should not discuss the question. The only leading suggestion he would make was that those who attended this proposed special meeting should address themselves to the question of the latest returns of the cattle population in this country. They could assume that between 30 and 40 per cent. of the cattle population would respond to the first test. Then let them find out what it would cost to deal with those cattle in the way that was suggested in the circular which the Hon. Secretary had read, and then

(*Continued from previous page.*)

that butcher horses are much healthier than butcher cattle.

Numerous prosecutions were undertaken and fines amounting to £47 2s. 6d. were imposed.

A. W. N. P.

* Received on November 26th.

think whether there was the least likelihood that so much money could be found in this country at the present time.

Mr. W. F. ASTON seconded Mr. DeVine's motion, not only from the veterinary point of view. He lived in a great dairying district, and he was impressed by the number of farmers who had definitely come to the conclusion that they ought to have their cows tested.

The general feeling of the meeting was clearly in favour of a special meeting, and Mr. DeVine's motion, on being put to the vote, was carried *nem. con.*

The Hon. Secretary was instructed to have the circular printed for distribution among the members before the special meeting is called.

A letter from the National Veterinary Medical Association on the subject of sheep scab was also referred to the special meeting.

International Congress.—The President and the Hon. Secretary were deputed to represent the Division at the 11th International Veterinary Congress, to be held in London.

Address by Professor Macqueen.—An address entitled "Some Clinical Observations," was now given by Professor James Macqueen, F.R.C.V.S., and was followed by a short discussion.

[A report of Professor Macqueen's address and of the discussion upon it will be found at the commencement of this issue of the *Record*.—ED.]

The HON. SECRETARY moved a vote of thanks to Professor Macqueen for his address, and said it was one of the most interesting and informative meetings they had had for a long time.

Mr. R. HUGHES, seconding, said it was a pleasure to all of them to meet so distinguished a member of the profession.

The resolution being carried by acclamation, Professor Macqueen acknowledged the compliment, after which the company had tea together before separating.

H. J. DAWES, *Hon. Secretary.*

Western Counties Division, N.V.M.A.*

MEETING AT TAUNTON.

A meeting of this Division was held on Wednesday, November 20th, 1929, at the Great Western Hotel, Taunton. The Chair was occupied by Mr. C. Masson at the outset, and later (on his arrival) by the President, Major W. Fyrth.

The minutes of the Summer meeting, as published in the *Veterinary Record*, were taken as read and signed as correct.

Correspondence. (1) From Messrs. J. Dunstan, F. T. Harvey, Professor Hobday, Messrs. H. B. Kauntze, J. K. Irvine, W. B. Nelder, R. H. Penhale, J. M. Walker, W. N. Wright, E. J. L. Norman, H. K. Roberts, W. Ascott and C. Crowhurst apologising for their absence from the meeting.

(2) From Messrs. H. G. McShane (Honiton) and J. M. Walker (Liskeard), both of whom had left the district, resigning membership. Both resignations were received and were accepted with regret.

(3) From the Hon. Secretary of the 11th International Veterinary Congress, London, inviting the Division to appoint delegates to attend the Congress in August, 1930. It was stated that the Council had considered the matter and recommended that two delegates should be appointed, namely, Messrs. S. J. Motton (Penzance) and C. Masson (Torquay).

The PRESIDENT said they could not have two better men to represent them and he proposed the adoption of the Council's recommendation.

Mr. E. R. EDWARDS seconded the proposition, which was unanimously carried.

County Secretaries. The HON. SECRETARY said it had been suggested that they should officially appoint county secretaries to deal with matters that arose in connection with county councils. In the past, when such matters arose, it had been the custom for the Hon. Secretary to ask men in the various counties to thresh them out, and it was now proposed that these men should be officially recognised. The Council recommended that the following be appointed county secretaries: Mr. S. J. Motton (Cornwall); Mr. A. G. Saunders (Somerset); Major W. Fyrth (Dorset); and Mr. R. Barons Nelder (Devon).

Mr. E. R. EDWARDS moved, Mr. C. MASSON seconded, and it was agreed, that the Council's recommendation be adopted.

Nomination of Member.—Mr. J. Willis Thwaite, M.Sc., B.V.Sc., M.R.C.V.S. (Liskeard), successor to Mr. J. M. Walker (whose resignation had just been received) was nominated as a member by Mr. J. Dunstan and seconded by the Hon. Secretary.

BOVINE TUBERCULOSIS.

The meeting then proceeded to discuss a scheme for the eradication of bovine tuberculosis, proposed by the West of Scotland Division of the N.V.M.A. and set out in detail in the *Veterinary Record* of September 21st, 1929, page 818.

The PRESIDENT said he certainly agreed with the West of Scotland that the Tuberculosis Order should be maintained and if possible its scope extended with reference to testing. Referring to the suggestion that the cost of testing should be borne by the Ministry of Agriculture and Fisheries, the President remarked that many people would like to have their herds tested but could not afford it. If the cost was met by the Ministry (*i.e.*, the public) practically all the herds in the country would be tested, but the expense would be enormous. People would be only too pleased to have their herds tested along those lines and to discard all reactors.

Mr. E. R. EDWARDS supported the President's view.

Mr. C. MASSON remarked that the idea was that the local veterinary surgeons in the various areas should do the work and be paid by the Ministry.

Mr. S. J. MOTTON said that the publication of the scheme had directed attention to a very desirable object, but he thought at the moment it was outside the realm of practical politics. In England and Wales alone there were over six million cattle and between two and three million pigs. It was suggested that the operations should start in areas. No figures were given, but it occurred to him that any scheme which would start on less than three per cent. of the total would not be much better than the

* Received on 29th November.

present state of affairs. If his assumption was correct, then three per cent. of the probable six hundred thousand tuberculous cattle in the country would be about 18,000 at the first round. At the low estimate of £10 per head to be paid in compensation it would mean £180,000 to begin with, but the rate of compensation would quite possibly be twice that amount. To this would have to be added the cost of testing and administration. He might be quite wrong, but it looked like £300,000 or £400,000 to deal with the first 18,000 animals. No doubt a good deal of money would come back in salvage, but in districts which did not possess a public abattoir the disposal of the affected carcases might not be free from difficulties. It might easily be that butchers would be shy of handling them, for they would not want to earn a reputation for dealing in the flesh of tuberculous animals. There were other points in the scheme which struck him as being objectionable or impracticable, and he thougnt there was a good deal in what Major Harry Peele said at the meeting of the North of England Division on September 28th. Mr. Motton then moved: "That we think the West of Scotland Division's Scheme is at present not practicable and that the case would be better met by a review of the Tuberculosis Order and the Milk (Special Designations) Order with a view to their amendment and extension, together with a more rigid enforcement of the Milk and Dairies Order, 1926." The mover added: "If there is money to be collected from anywhere, would it not be possible for the Government to subsidise the people who are already trying to clear their herds of tubercle?"

The PRESIDENT agreed that butchers would be shy of dealing with reactors. He happened to hold an office as meat inspector, and he would need to be thoroughly satisfied that it was a right thing to do before he passed a reactor for human consumption.

Mr. E. B. O. HALL thought it would be an excellent thing if they sought powers to be able to test any animal they suspected, instead of being told by the owner that they could not.

The PRESIDENT: If it was made compulsory that any suspect should be tested, it would not necessarily mean the whole herd. He was afraid the Scheme was rather too Utopian. He added that the Milk and Dairies Order was in some places more honoured in the breach than the observance.

Mr. EDWARDS suggested a revision of the Tuberculosis Order and some provision for dealing with reactors. It was all a question of cost.

Mr. L. W. BOVETT seconded Mr. MOTTON'S proposal.

Mr. E. J. THORBURN expressed the view that the time had certainly not arrived for the adoption of such a scheme. It was far too idealistic. If they carried out a wholesale tuberculin testing of the cows, they would slaughter all reactors and numbers of them would not be giving tuberculous milk. Supposing a man had several reactors in his herd, he would have difficulty in replacing them because there were not sufficient herds in the country which were tuberculin tested. If every cow that reacted had to be branded, as suggested, it would mean an enormous loss of money to the farmer. The animal would probably realise only about half its value in the market and how was the farmer going to be compensated? He thought the scheme was far too much "in the clouds."

The PRESIDENT thought it would be a step towards the eradication of tuberculosis if it could be made compulsory that all stock bulls should pass a tuberculin test. There would then be less likelihood of the calf being pre-disposed to tuberculosis.

Mr. EDWARDS was of opinion that the risk of service was so slight that such a procedure would not be worth the cost.

Mr. P. W. BLOYE remarked that many farmers hated the idea of anyone testing at all. They thought it meant slaughter.

Mr. MASSON considered that they ought not to "crab" the proposal. The idea of the West of Scotland Division was to start with an island and if it worked satisfactorily to extend it.

The HON. SECRETARY said he gathered that the general opinion of the meeting was that they were in sympathy with the idea of the Scheme, but the time was not ripe for putting it into operation. Perhaps, therefore, at present it would meet the case if the various Orders already in force were tightened up. He suggested that Mr. Motton should prefix his resolution with the words, "The Western Counties Division is in sympathy with the idea of the Scheme, and continue, 'but is of opinion that at present it is not practicable, and that the case would be better met by a review of the Tuberculosis Order and the Milk (Special Designations) Order, with a view to their amendment and extension, together with a more rigid enforcement of the Milk and Dairies Order, 1926.'"

Mr. Motton agreed, and in this revised form the resolution was unanimously approved. Copies are to be sent to the West of Scotland Division and the National Veterinary Medical Association.

The President's Paper.—Major FYRTH then read a very helpful paper on "Traumatic Pericarditis in Cattle," which yielded a satisfactory discussion.

[Both paper and discussion are reproduced earlier in this issue of the *Record*.—ED.]

Major Fyrth, who was heartily thanked for the presentation of his paper, and for presiding, was supported at the meeting by the following members: Messrs. C. Masson, S. J. Motton, P. W. Bloye, E. J. Thorburn, E. R. Edwards, L. W. Bovett, E. B. D. Hall, E. C. Bovett, J. M. Penhale, A. G. Saunders, R. Barons Nelder (Hon. Secretary) and H. C. Wilkins (a visitor).

R. BARONS NELDER, *Hon. Secretary.*

Royal Counties Division, N.V.M.A.

OFFICERS ELECTED AT LONDON-MEETING.

At the commencement of next week's issue of the *Record* we shall print the paper by Colonel Walker on "The Education and Training of the Veterinary Student," together with the discussion thereupon, which constituted the greater part of the proceedings of a well-attended meeting of this Division, which was held at 10 Red Lion Square, London, on 29th November, 1929. Another very important item of business was the election of officers for the ensuing year, while the occasion was rendered additionally noteworthy by the decision which was arrived at to make a somewhat more impressive function of the Annual Dinner than hitherto, transferring it from Reading to London.

The retiring President (Capt. J. R. Hewer) occupied the Chair, and there were also present Messrs. J. W. Baxter, J. Bell, R. E. C. Bullen, Professor J. B. Buxton, Majors A. C. Duncan, G. W. Dunkin and J. J. Dunlop, Mr. C. W. Howard, Major H. Kirk, Major H. G. Lepper, Capt. W. L. Little, Mr. G. P. Male (President, N.V.M.A.), Mr. J. W. McIntosh, Major-General Sir John Moore, Lt.-Col. P. J. Simpson, Colonel G. K. Walker, Major R. F. Wall, Messrs. F. W. Willett, R. A. Willett, Capt. E. C. Winter, Professor G. H. Wooldridge and Mr. H. Bell (Hon. Secretary).

At the commencement of the meeting the PRESIDENT observed that before starting on the business of the meeting he was sure they would all like to congratulate their Treasurer upon his election as President of the National Veterinary Medical Association, while they had noted with gratification that Colonel Simpson had been selected to fill the important office of Hon. Secretary of the Victoria Veterinary Benevolent Fund. (Applause.)

Mr. MALE, while thanking the members most sincerely for their congratulations, remarked, amid laughter, that he was not at all sure that, great as was the honour, his election to the Presidency of the N.V.M.A. was entirely a matter for congratulation; he thought it was probably the reverse. He did, however, thank them very much for so kindly showing their nice feelings about it.

Colonel SIMPSON also suitably acknowledged the compliment paid him.

The minutes of the previous meeting, which had been published in the *Veterinary Record*, were taken as read and were signed as correct.

CORRESPONDENCE.

(1) From Capt. H. B. Collet, Mr. J. C. Coleman, Mr. A. C. Dixon, Vety.-Major G. Rees-Mogg, Mr. F. T. Trewin and Mr. J. Willett apologising for their inability to attend the meeting.

(2) From Capt. W. S. Austin (Devizes), Lt.-Col. A. F. Deacon (Uffington), Mr. W. F. Maynard (Romsey), Major E. E. Seldon (Tetbury), and Mr. Walter Western (Bracknell), tendering their resignations on the ground that they were unable to attend the meetings of the Division.

Mr. MALE said that with regard to Capt. Austin, Mr. Maynard and Major Seldon, he had only received their letters of resignation three days previously, and he had written to these gentlemen asking them to reconsider their decisions, but there had not been time for him to receive their replies. He felt that, even if those who had intimated their intention to resign their membership could only come to the meetings very occasionally, it was important that they should continue to be associated with the Society. (Hear, hear.)

It was unanimously resolved to request the officers of the Division to use their influence with the gentlemen concerned to endeavour to induce them to reconsider their decisions, the results of their efforts to be reported to the next meeting.

(3) From Dr. F. Bullock (Secretary of the Victoria Veterinary Benevolent Fund) returning thanks for the Division's donation of the sum of £5 to the Fund.

(4) From Professor J. B. Buxton, in his capacity as the Honorary Secretary of the Eleventh International Veterinary Congress, inviting the Division to appoint two delegates to the Congress to be held in London from 4th—9th August, 1930.

The meeting unanimously agreed that two delegates be sent, and appointed the President-elect (Major Duncan) and the retiring President (Capt. Hewer) as its representatives.

(5) From the Editorial Representative, N.V.M.A., intimating that the Editorial Committee of the Association desired that, in forwarding reports of meetings for publication in the *Record*, Secretaries should send only resolutions following upon the discussion of circular letters to Divisions of the Association, and such summaries of the discussion as would indicate the method of approach to the resolutions. An appeal for contributions to the clinical columns of the Association's journal was also made. The meeting approved of the suggestions.

(6) From the Hon. Secretary of the Scottish Branch, N.V.M.A., enclosing a copy of the West of Scotland Division Scheme for the Eradication of Bovine Tuberculosis, and saying that any suggestions on the subject that the Royal Counties Division cared to make would be gratefully received and would serve to guide the Scottish Branch in further action.

Consideration of this matter was deferred, as it appeared later on the agenda of the meeting.

Elections to Membership.—Messrs. A. C. Dixon, of Berkhampstead, and C. H. Ducksbury, of Calne, were unanimously elected as members of the Division.

ELECTION OF OFFICERS.

President: Major A. C. Duncan. In moving from the Chair the election of his successor, Mr. HEWER said that it gave him very great pleasure to propose as their President, their senior Vice-President, Major Duncan, of Cirencester. (Applause.) Major Duncan needed no introduction from him: they all knew him very well indeed. It was not very long ago since they had listened to a very able paper on the law from him, and he was confident, from the remarks Major Duncan had made then, that he would lead them in the way they should go. They had also recently seen him decorated by Colonel Simpson with the Territorial Medal, while he was also a Deputy Director of Veterinary Services (Territorial Army). Furthermore, Major Duncan was, as they knew, an eminent member of the legal profession.

Mr. F. W. WILLETT seconded the proposition, which was carried with acclamation.

Major DUNCAN, returning thanks for his election, said he was grateful to the members for the honour they had bestowed upon him, although he thought their routine method of advance from the position of Vice-President was one which should not be adopted. But if it was their wish that he should accept the honour he would, with the assistance of the permanent officials (laughter), do his best to render satisfactory service.

Vice-Presidents: The retiring President and Major Dunkin.

Council: The President, Vice-Presidents, Hon. Secretary and Hon. Treasurer (*ex-officio*), Messrs. Baxter, Buxton, McIntosh, Simpson, Taylor (F. J.), Willett (F. W.), and Willett (J.). These were re-elected *en bloc*, with Major J. J. Dunlop as an additional member.

Hon. Auditor: Mr. J. Willett (re-elected).

Hon. Treasurer: Mr. G. P. Male (re-elected).

Hon. Secretary: Mr. H. Bell (re-elected).

The PRESIDENT, in proposing the re-election of Mr. Bell, paid a warm tribute to the Hon. Secretary's work, and said that Mr. Bell had indeed proved himself, in relation to the President, a most worthy and efficient *aide-de-camp*.

Representatives to the Council of the N.V.M.A.: Professor J. B. Buxton, Mr. J. Willett and (*ex-officio*) the Hon. Secretary. Professor Buxton was elected in the room of Colonel Simpson, who is a Vice-President of the "National."

Representatives to the Council of the Victoria Veterinary Benevolent Fund: The President was elected, to take the place of Colonel Simpson, who is now the Hon. Secretary of the Fund.

Place of Next Meeting.—It was agreed to hold the next meeting, which is the annual general meeting, at Reading, in January. The annual general meeting at Reading has hitherto been followed immediately by the annual dinner, but after considerable discussion it was decided that this function should be of a more ambitious nature than hitherto, and should be held in London on the date of the first quarterly meeting of the year—*i.e.*, on the last Friday in April.

The PRESIDENT now called upon Colonel G. K. Walker, C.I.E., O.B.E., V.D., F.R.C.V.S., to read his paper, which was followed with the keenest interest, and which produced a well-sustained discussion, ably opened by Professor Buxton.

The last item on the agenda was "To discuss the Scheme for the Eradication of Bovine Tuberculosis, as proposed by the West of Scotland Division, N.V.M.A.," but time did not permit of this, and the discussion was accordingly postponed.

On the call of the PRESIDENT, the meeting accorded a hearty vote of thanks to Colonel Walter for his paper, and to Professor Buxton for his opening of the discussion.

At the termination of the proceedings, Mr. HEWER said that, as that was the last occasion upon which he should have the pleasure of presiding over them, he desired to thank the members for the way in which they had supported him during his term of office. He had had a very pleasant year in the Chair, and he hoped that they would extend to his successor the same measure of support which had rendered so enjoyable his term of service as their President. (Applause.)

Mr. MCINTOSH moved a hearty vote of thanks to Mr. Hewer for his conduct in the Chair during the past year, saying that the members were particularly indebted to him for the very interesting day he had given them at Windsor.

The motion was carried with enthusiasm.

H. BELL, *Hon. Secretary.*

Retractors for Tracheotomy.—The Advertisement of these instruments, appearing on Page x. of the *Record* of December 14th, referred to those made by Arnold and Sons (John Bell and Croyden), whose name was inadvertently omitted from the announcement in question.

NOTES AND NEWS.

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events.

Dec. 30th—Meeting of the Editorial Committee, N.V.M.A., at 10 Gray's Inn Square, London, W.C.1, at 4-30 p.m.

Jan. 9th, 1930.—Meeting of the Central Division, at 10 Red Lion Square, London, W.C. 1, at 6-30 p.m.

PERSONAL.

Marriage:—WILSON—DUNCAN.—At Perth, on the 18th inst., Harry McIntyre Wilson, M.R.C.V.S., Cupar, Fife, son of H. C. Wilson, Douglas Lodge, 9 Merchiston Place, Edinburgh, to Margaret Ross (Madge), daughter of George C. Duncan, Newton of Lathvisk, Freuchie, Fifeshire.

LIVERPOOL B.V.SC. EXAMINATIONS.

The following is the University of Liverpool, School of Veterinary Science, Examination List for December, 1929, in connection with the University Degree of B.V.Sc.:—

SECOND EXAMINATION: *Part I.*—Amos, Vera J. E.; *Part II.*—Amos, Vera J. E.

PARLIAMENTARY NOTES.

Humane Slaughter of Animals.—The text of the Slaughter of Animals Bill, introduced by Lt.-Col. Moore, was issued on 19th December.

The object of the Bill is to ensure that all animals slaughtered in slaughter-houses and knackers' yards in England shall be humanely killed and that only competent and reliable men shall be employed. Jews and Moslems are permitted to slaughter animals in accordance with their religion.

The Ministry of Health, states the Memorandum to the Bill, some years ago issued model by-laws for slaughter-houses providing for the use of mechanical instruments, which may be adopted voluntarily by local authorities, and 325 local authorities had adopted these model by-laws. The new Bill incorporates these by-laws and applies them to the whole country.

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Foot-and-Mouth Disease. — Mr. Matters asked the Minister of Agriculture if he had been able to ascertain whether the active virus of foot-and-mouth disease was introduced to this country in the marrow of the bones of chilled beef imported from the Argentine Republic.

Mr. N. Buxton: The experiments of the Foot-and-Mouth Disease Research Committee have shown that the virus of foot-and-mouth disease remains active in bone marrow which has been kept at a low temperature for 76 days. While it is, therefore, theoretically possible for the disease to be introduced into this country in the way suggested, there is no positive evidence that this has, in fact, happened.

Mr. Matters: Has the right hon. Gentleman's attention been called to a statement in a London journal that this committee has determined that infection from the Argentine Republic is coming into the country in the manner indicated by my question.

Mr. Buxton: There is no evidence to that effect.

. . . . . .

Irish Cattle (Import).—Mr. Freeman asked the Minister of Agriculture whether his inquiries as to cruelty suffered by cattle imported from Ireland had been completed: and, if so, what steps he proposes to take to prevent a recurrence.

Dr. Addison: My right hon. friend has completed his inquiries. A consignment consisting of 10 cattle was imported on November 14th from Ireland to Birmingham

via Fishguard. The Ministry's Inspector at Fishguard reports that the cattle had a good sea passage from Ireland, and that there was nothing in their condition or behaviour whilst at Fishguard to suggest that they were injured. After the expiration of the period of ten hours' detention at Fishguard prescribed by the Ministry's Orders for the purpose of examination and rest, they were entrained for Birmingham. The consignee at Birmingham states that the cattle showed no signs of illness, injury or distress on arrival there, and that after examining them he bought them as prime quality beasts. When the carcases were dressed, however, two were found to be badly bruised along the lower ends of the ribs, and one of these had two ribs broken. Although there is no evidence to show where these injuries were received, they might have been sustained by one of the cattle getting down in the railway truck. My right hon. friend is satisfied that the occurrence was a most exceptional one, and that the Transit of Animals Order, of which I am sending a copy to my hon. friend, affords sufficient protection.

Army Veterinary Service.

London Gazette—War Office—Regular Army.

Dec. 20.—Maj. E. G. Turner, D.S.O., is secd. for serv. under the Colonial Office (Dec. 20).

H.M. Stationery Office Publications.

The undermentioned have been published recently. Copies can be purchased through any bookseller, or directly from H.M. Stationery Office, at the following addresses:—London: Adastral House, Kingsway, W.C.2, and 28 Abingdon Street, S.W.1; Cardiff: 1 St. Andrew's Crescent; Manchester: York Street; Edinburgh: 120 George Street.

	Price Net.	Post Free.
House of Commons Bills.	s. d.	s. d.
48. Slaughter of Animals. To provide for the humane slaughter of animals; and for purposes connected therewith	0 3	0 3½
90. Exportation of Horses. To amend the Law with respect to the Exportation of Horses	0 1	0 1½

National Horse Association of Great Britain.

At a recent meeting of the Council of the National Horse Association it was reported that 140,000 of the 5th series of poster stamps had been issued since October, and the Council were pleased to learn how popular this item to encourage the use of the Horse was proving, and to learn that as a result of their use on correspondence over 200 firms had written the Association asking for the booklet of statistics as regards the cost of Horse Transport. Further designs embodying the heads of other heavy horse breeds were authorised to be prepared.

The designs of the new Gold Medal and certificate for bravery displayed in rescuing horses from death were approved.

The Council hope that the general public will inform the Association of any cases which are worthy of the Association's attention.

The draft of the second report of the Slippery Roads Committee was submitted to the Council and the main bulk of the report (which has been drafted by the Committee in conjunction with representatives of the County Surveyors Society) was passed for publication. After sundry items have been finally discussed, the report will be issued and widely circulated to all interested in the danger attaching to Slippery Roads.

The draft of the proposed Traffic Bill was considered by the Council, and as they considered that certain clauses might affect the user of Horse Transport, a letter of enquiry was directed to be addressed to the Minister of Transport.

Other bills to be brought before Parliament which might affect the horse owner were also considered, and representatives of the Council authorised to take any necessary steps in respect of any bill or bills which would restrict the use of the Road for Horse users.

It was reported that the membership now stood at 359, as compared with 303 in 1928 and 140 in 1927.

"*Extraordinary Feat in Making Horse-shoes.*"—Under the above heading, the *North British Agriculturist*, in its Excerpts from that journal of sixty years ago, prints the following:—"A discussion arose the other day in the forge attached to the Veterinary College, Clyde Street (Edinburgh) as to the extent of the human powers in the production of shoes for horses. The making of six pairs is allowed by all comptetent judges to be something above the average work; and on Mr. Taylor, the foreman of the forge department, asserting that he was capable of finishing twelve pairs in an hour, exception was taken to his statement, and a proof of his skill appointed to take place on Saturday forenoon at eleven o'clock. To give additional interest to the occasion, £1 a side was staked. Accordingly at the time appointed the contest commenced, and was witnessed during the time by a large number of students and others, Mr. Taylor being ably assisted by his hammerman, Mr. D. M'Farlane. Within three minutes and a half of the hour twelve pairs were all completed, amid a hearty round of applause and the congratulations of those assembled. The iron used in making them was inch by half inch, and all forefeet shoes. They were examined by parties competent to judge, and pronounced to be well made. We may add that the men seemed nowise fatigued by their extraordinary exertions."

The Voronoff Operation.—The Imperial Bureau of Animal Genetics at Edinburgh has issued a note, quoted by the Ministry of Agriculture's "Journal," in which it is shown how independent French experimenters with Dr. Voronoff's treatment, as applied to farm stock, have arrived at similar conclusions reached some time ago by British investigators.

"Stock breeders who were interested in the Voronoff operation will remember," states this note, "that the delegation which went out from this country to investigate Dr. Voronoff's own experiments in Algeria reported that there was insufficient evidence to justify his claims. Since then two French veterinarians, MM. H. Velu and L. Baloet (Laboratore de Recherches Service de l'Elevage, Casablanca, Morocco), who also inspected Dr. Voronoff's work, have been repeating his experiments on sheep."

The result of the French experiments is summarised as follows:—"The investigators therefore conclude—justly in our opinion—that the successful results apparently achieved by Voronoff were really due to the fortuitous choice of superior animals."

The Commercial Pig.

Under the title of "The Commercial Pig" (Marketing Leaflet, No. 15), the Ministry of Agriculture has issued the first report of the Pig Industry Council. The chief recommendation is that the fine-boned type of Large White boar should be used as sire for the production of commercial pigs, and, in making this recommendation the Council claim to be following the lead of the chief continental countries from which the British market is at present largely supplied with bacon, and to be proceeding along the line which is already followed by many of the commercial producers of pork and bacon pigs in this country.

In order to secure a supply of Large White boars of the type required, the Council recommends that testing stations be established where litters of pigs can be examined as to the rate of growth and quality of carcase. These trials would be conducted under standard conditions of management and feeding. Similar testing stations are recommended to deal with the Large Black, Middle White, Berkshire and Essex and Wessex breeds, as well as with

first crosses from the Large White boar. The Council thinks that the adoption of this policy would maintain the pure breeds of sows, and would, at the same time, enable a genuine estimate to be arrived at as to the relative merits of the more important breeds.

The Council goes so far as to consider on what grounds opposition to the main policy they propose—of the use of the Large White boar—might be based, and they name two main lines of possible argument. First, that it might be said that the policy would damage the valuable and well-established pedigree breeding industry, and, second, that while the Large White may be the best sire for bacon pigs, others are better for the production of pork pigs. Both arguments are disposed of; the first on the ground that the policy would be likely to maintain and improve pure strains of sows for cross-breeding with Large White boars, rather than the reverse; and the second, because the Large White has already proved itself to be a dual-purpose pig.

CORRESPONDENCE.

Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue.
All correspondence must bear the name and address of the contributor for publication.
The Editor does not hold himself responsible for the opinions of his correspondents

Uterine Torsion in the Cow.

To the Editor of the Veterinary Record.

Sir,—There has been much correspondence in the *Veterinary Record* upon this subject and I think that amongst that which has been written one pen unfortunately indited in a sarcastic manner, which is a pity, for all of us are open to criticism, not being of one mind in all things.

Probably each of us has his favourite methods of dealing with the various presentations met with in obstetric cases and frequently each of us has become expert with his own individual ways, to the satisfaction of himself (very important), his client (more important still), and to the benefit of his patient (yet more important).

Until about twenty years ago I employed the rolling method for reduction purposes, finding results fairly satisfactory, especially with big cows, but not always so pleasing with heifers—which is easily understood, for every one knows that calving a heifer is 50 per cent. more troublesome than assisting a cow.

I think it is beyond dispute that the condition of "torsion" is due to a twist or semi-twist, because the gravid uterus has turned over, with the result that the twist is evidenced where the vagina and *os* merge. The cow is rolled to untwist the condition and for this purpose the cow is cast (if not already down) and the legs tied, etc. An arm is introduced and the hand grasps the calf firmly to make it (the calf) a fixed part and the cow is rolled towards the twist so that, the calf in the womb being a fixed point, the cow in turning over unwinds the twist. Also, the operator (having to lie on the ground behind the cow) chooses with care which arm to insert, which is the one nearest to the axial centre of the roll, for the object is to get a firm hold of one of the calf's legs to prevent the calf turning and also the uterus with it; but if the arm which is furthest from the line of axis is used one is apt to have an unpleasant jerk at the shoulder at the moment the cow is pulled over, the grip on the calf is loosened and the object is not achieved. To roll a cow without making a fixed point of the calf by a firm grip is just chancing that luck may undo the torsion, which, from my experience in the past, is long odds against a successful issue.

I think at this point we may consider the reason why a torsion is developed and, to my mind, it is only reasonable to suppose that it occurs by reason of the gambols of the calf *in utero*. The inside of the uterus is not like the inside of a ball, and it is easy, therefore, to imagine a calf getting a foothold, turning over and carrying the walls of the uterus with its body and, lo! the torsion is developed at the neck of the genital passage.

Personally, I cannot believe any other explanation for the condition occurring in a cow. I can, of course, think of twisting by spasm, but doubt its possibility in the bovine. Of the effects of the use of pituitrin in bitches, canine practitioners can tell more than myself.

To go back to the point above, I remember a day, twenty years ago, when I dealt with two cases of torsion in the cow (I have had torsion in the mare, the sow, the cat and the bitch), and at night was called to a case which proved to be a third. This case had been given up by the local leech (a very good fellow, too, at calving cases). The animal was a big-bodied cow and the presentation was posterior. Grasping the feet firmly failed to make a fixed point of the calf for rolling purposes, so that eventually I roped the feet and guided them towards the *os uteri*, having the ropes pulled, and when the gaskins began forcing through the *os* the calf rolled over, undoing the twist.

Since that night I have never rolled a cow for torsion; therefore, if my method is of interest to those who are young and have not adopted a settled one, I will endeavour to describe my procedure in the standing position.

When the hand has been passed into the uterus the arm can rotate in the axial line of the vagina. I first take a good strong slip in, with a large loop—a strong slip not likely to break—and rope the head, endeavouring to have the noose of the slip under the inter-submaxillary space. Two other slips are adjusted to the feet of the calf. Now comes the stage where I consider exactitude of the greatest importance, namely, to lift the toes of the calf on to the pubic brim of the pelvis and to insist on the helpers maintaining the strain on the feet ropes sufficiently to prevent the toes dropping back or being further pulled out. My hand is now passed over the nose of the calf and its muzzle directed towards the *os* and a good strong man directed to pull the head rope; the head is pulled hard, but if it is found that the leg rope men have let the feet drop back, or have pulled them out to the fetlock, I re-adjust the toes on the brim of the pelvis and then continue the pulling of the head. The muzzle of the calf soon comes along into the *os* and now the feet are pulled on an inch or two, more traction is applied to the head and suddenly the calf turns and the torsion disappears.

Of course in all cases delivery is not easy now, especially in heifers, because the beautiful tent of the water bladder has not had the opportunity to do its splendid work of dilating the proximal end of the vagina. Perhaps experience and practice with innumerable cases have just developed the tact required to conduct the routine easily and so for a score of years I have not cast or rolled a cow.

I am of opinion that I conduct these cases in about half the period of time that I used formerly in throwing, etc. As regards the turning of the uterus by manipulating, of which one reads, I admit I do not undetrsand it, but am willing to be taught if some one will publish the procedure. Personally, I have endeavoured, in the standing position, to take a firm hold of the calf and try to roll it over and undo the twist, but must admit that when I was a younger and stronger man than I am to-day, I utterly failed to turn the calf by my own physical endeavours and have only succeeded in torsion reduction by rolling and the method I have endeavoured to describe above. I think I can claim to have attended not less than 4,000 parturition cases in my time and I suggest that a moderate estimate of twist would be about 2 per cent.

With reference to Mr. Margarson's question as to which way to roll the cow, the answer is, of course, to roll towards the twist. Let Mr. Margarson spread an overcoat on a floor with one sleeve extended, then place a cushion on the coat and wrap the cushion up with the coat skirts; for analogy, let the cuff of the sleeve represent the pudendum, the sleeve the vagina and the coat and cushion, the uterus and calf respectively. Now turn the coat and cushion over once, when a twist is developed at the imaginary *os*. Next pass a hand up the cuff and sleeve far enough to grasp the cushion and hold it firmly, making it a fixed point. It will then be found that the cuff vulva, which is

in theory part and parcel of the body of the cow, must be turned in the direction of the twist to undo it. Try it.

Now that I have taken up the pen, may I call the attention of students to the correct method of roping a hind foot in breech presentation, and that is to have the noose of the slip at the front of the pastern, guiding the rope down between the cleaves; consequently, after the hock has been pushed forward to the uttermost and the flat hand spread over the point, traction flexes the pastern, allowing the foot to be drawn out easily, whereas in the ordinary way of roping the pastern and pulling, the foot is extended, whilst the adjustment I mention flexes it, thus saving several inches of space.

Yours faithfully, G. H. Williams.

Chippenham,
December 15th, 1929.

P.S.—Bailey's Dictionary, 1778, says: "Gambols = Games or tumbling tricks played with the legs"; also see Luke, Chap. I., verses 40-44. G. H. W.

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To the Editor of the Veterinary Record.

Sir,—I congratulate Mr. Margarson on being the first veterinary surgeon who has envied me the number of cases of torsion of the uterus met with in this district. On the whole, I do not consider the condition troublesome from an obstetrical point of view. Any calving case which takes three hours to finish I should and I do consider troublesome, but several times a year one has to make time to spend hours over a calving case.

Often have I cast and rolled a cow and corrected the torsion well within the half hour; the time is expended in delivering the cow after the torsion is corrected. I made no mention of any other condition in my last letter and beg to emphasise the fact that imperfect dilatation (following torsion) of what feels a normal *os* is the greatest difficulty met with.

The cases corrected by manipulation might be non-dilatation of the *os* due to so-called inertia.

It would be interesting to know what Mr. Margarson means by "the muscles giving way," and what parts he manipulates, since one can only insert the hand freely a short distance into the vagina in complete torsion. It is a pity that Mr. Margarson did not roll the cow affected with complete torsion which he could not correct by manipulation, as stated in his first letter.

Yours faithfully, H. Fraser.

16th December, 1929.

A Case of Operative Treatment of Colic in the Horse.

To the Editor of the Veterinary Record.

Sir,—I was much interested in the "Abstract" on the above subject in the *Record* of December 14th. To the seeker after truth and the honest doubter romance is something like "the scent of the roses." "You may break, you may shatter the vase, if you will, But the scent of the roses remains with it still." Hence I doubt the last lines in the "Abstract." They read, "a *gallon* of ol. lini had been given during every day of the illness," and we are told that the illness lasted three days. Poor horse! Industrious attendant! Of course, "there may be more things in Heaven and earth than are dreamt of in our philosophy," but if this is truth, it is so much stranger than fiction that it is hardly believable.

Yours truly, G. Mayall.

The

National Veterinary Benevolent & Mutual Defence Society.

President: W. WOODS, Esq., F.R.C.V.S.

"ONE NEVER KNOWS."

Have ***YOU*** ever been concerned with an action-at-law brought against you for alleged ill-treatment of an animal, for so-called neglect, for an opinion honestly expressed, or an accident in the course of treatment of any animal?

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If you have not, are you certain that an action-at-law will never be brought against you?

These points are important and worthy of serious thought, and in the meantime write to Col. Brittlebank, the Hon. Secretary of the National Veterinary Benevolent and Mutual Defence Society, Guildhall Chambers, 38 and 40 Lloyd Street, Manchester, who will send you full particulars of the benefits of being a member of the Society.